

SYMPLOCOS KOTHAYARENSIS (SYMPLOCACEAE),  
A NEW SPECIES FROM PENINSULAR INDIA

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ABSTRACT

A new species of Symplocaceae, *Symplocos kothayarensis* Sundaresan, Jothi, Rajkumar & Manickam from the Southern Western Ghats of Tamil Nadu, India is described and illustrated.

KEY WORDS: Symplocaceae, *Symplocos kothayarensis*, Tamil Nadu, India.

RESUMEN

Se describe y se ilustra una especie nueva de Symplocaceae, *Symplocos kothayarensis* Sundaresan, Jothi, Rajkumar & Manickam del suroeste de Ghats de Tamil Nadu, India.

INTRODUCTION

The family Symplocaceae comprises four genera (fide Index Nominum Genericorum; ex: Bobu, Dicalix, Cordyloblaste) and 500 species distributed in the tropical and subtropical regions, except Africa (Ahmedullah & Nayar 1986). They occur in the eastern parts of the Old World, reaching from Bombay in the West to Fiji in the east and from Manchuria in the north to New South Wales and Lord Howe Island in the south. In the New World the species occur from the state of Washington to southern Brazil (Nooteboom 1981).

The genus *Symplocos* Jacq. is represented in India by ca. 45 species. Among these, 13 species and one variety are endemic to peninsular India (Ahmedullah & Nayar 1986). In Tamil Nadu alone the genus *Symplocos* is represented by 10 species and six subspecies (Gopalan 1987).

The southern section of the Western Ghats in India is by far the richest floristic area with a concentration of endemic taxa (Ahmedullah & Nayar 1986). The Tirunelveli hills which include the "Agasthiyamalai" hills, is a remarkable

micro endemic center and one of the hot spots of the Indian flora (Nayar 1996) and attested by IUCN as CPD CITE IS7 (Davis et al. 1994).

During the preparation of the family Symplocaceae for the flora of Tirunelveli hills, one specimen was observed with striking differences belonging to the genus *Symplocos* Jacq. On critical examination, it was found to be a new species, and is described and illustrated here.

***Symplocos kothayarensis*** Sundaresan, Jothi, Rajkumar & Manickam, sp. nov.

(**Fig. 1**). TYPE: INDIA. TAMIL NADU. TIRUNEVELI HILLS. KANYAKUMARI DT.: Kothayar near Muthukuzhivayal, 1450 m, 12 Mar 1998, *Sundaresan 14968* (HOLOTYPE: XCH; ISOTYPE: MH).

*Symplocos pulchrae* arte affinis, sed foliis obovato-oblongis, obtusis; racemes curtioribus; disco glabrato et stylo ad basim glabrato differt.

Small trees to 2(-3)m tall; branchlets fulvous tawny hairy. Leaves simple, alternate, coriaceous, oblong-obovate, 6-9 × 2-4 cm, entire or serrate or half serrate at margin, the nerves ca. 6 pairs, faintly prominent, glabrous above, sparsely hairy beneath, the apex obtuse, emarginate, base acute-subobtuse; petioles ca. 2mm long, thick, bristly tawny hairy. Flowers ca. 15 in condensed axillary racemes, ca. 1cm long; bracts ovate, ca. 2.3 × 1.2mm long, obtuse at apex, densely villous without, glabrous within, persistent; flowers sessile or shortly pedicellate. Calyx tube ca. 1 mm long, with long appressed hairs; lobes 5, ovate, obtuse or subacute at apex, appressed hairy without, glabrous within. Corolla white, lobes 5, ovate-elliptic, apex subacute-obtuse, ca. 3.2 mm long. Stamens ca. 30, connate at the base, filaments free, ca. 2-2.5mm long; anthers 2-celled, ca. 0.5 mm long, Ovary ca. 1.3 mm long, hairy, 3-locular; ovules 2-3; styles stout, ca. 3mm long; stigma capitate; disc 5-lobed, glandular, glabrous. Fruits not seen.

*Distribution.*—*Symplocos kothayarensis* is endemic to the southern part of Western Ghats, Tamil Nadu, India and is known only from the type locality, Kothayar hills of Tirunelveli hills near Muthukuzhivayal in Kanyakumari District of Tamil Nadu.

*Ecology and phenology.*—This species grows at 1450 m elevation in the dense evergreen forests along with the species like *Cullenia exarillata* Robyns, *Elaeocarpus serratus* L., *Mallotus philippensis* (Lam.) Muell.-Arg. var. *philippensis*, *Artocarpus heterophyllus* Lam. *Symplocos cochinchinensis* (Lour.) Moore subsp. *laurina* (Retz.) Nooteb. etc...; flowering late February to April.

*Etymology.*—The species is named after its type locality.

*Symplocos kothayarensis* is closely allied to *S. pulchra* Wight but it differs in the obovate-oblong, obtuse leaves, short racemes, and glabrous disc and style base.

#### IDENTIFICATION KEY TO *SYMPLOCOS KOTHAYARENSIS*

1. Diffuse shrubs. Leaves membranous, oblong-lanceolate, apex long acuminate, base rounded or subcordate. Racemes > 2 cm. Disc and style base hairy \_\_\_\_\_ **S. pulchra**
1. Small trees, Leaves coriaceous, obovate-oblong, apex obtuse, emarginate, base acute subobtuse. Racemes < 1 cm. Disc and style base glabrous \_\_\_\_\_ **S. kothayarensis**

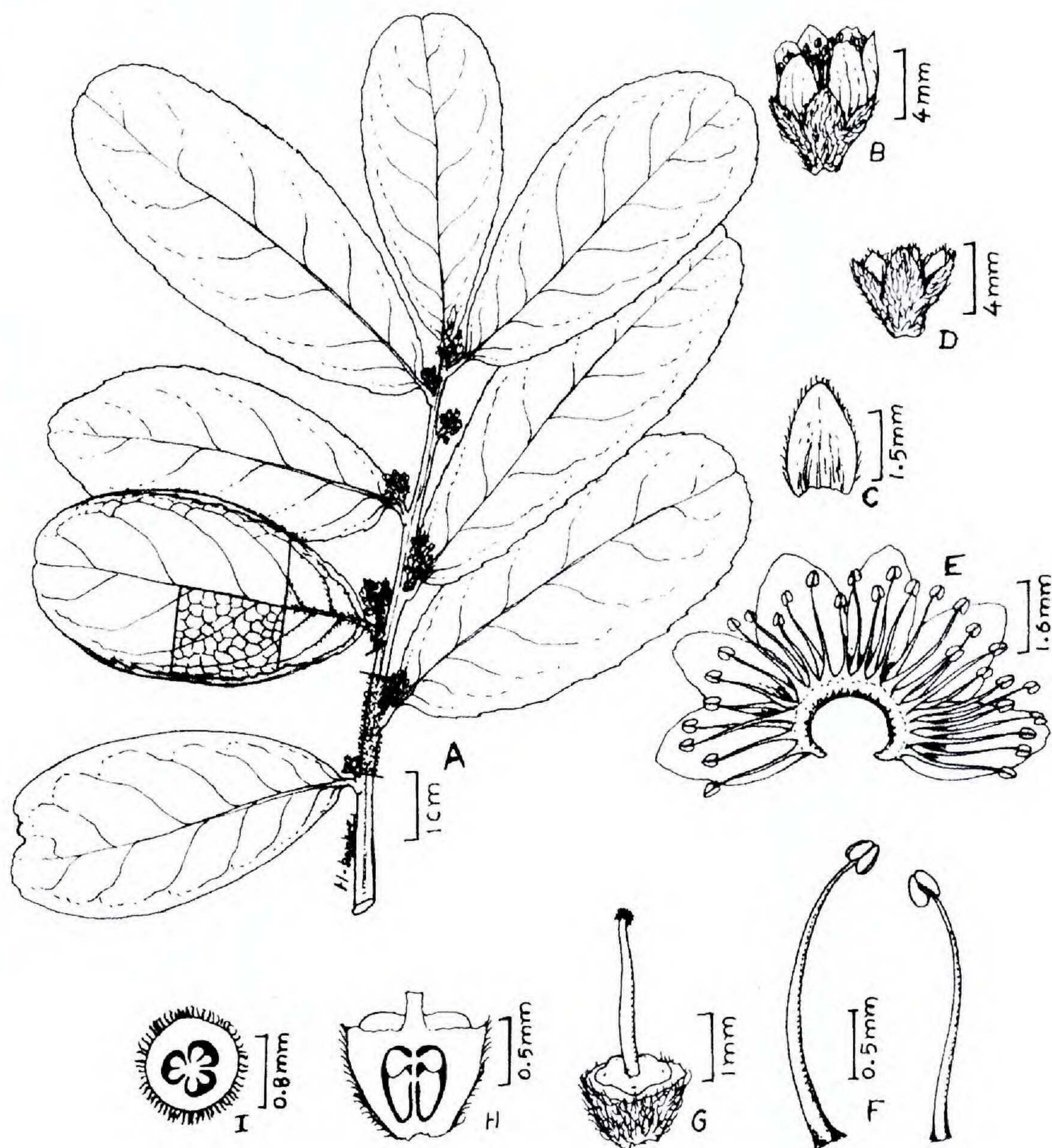


FIG. 1. *Symplocos kothayarensis*. A. Flowering shoot. B. Flowers. C. Bracts. D. Calyx. E. Corolla split open. F. Stamens. G. pistil with disc. H. Ovary (long. section). I. Ovary (cross section) drawn from the type by H. Sankar.

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## REFERENCES

- AHMEDULLAH, M. and M.P. NAYAR, 1986. Endemic plants of the Indian region. Botanical Survey of India, Calcutta.
- DAVIS, S.D., V.H. HEYWOOD, and A.C. HAMILTON 1994. Centres of plant diversity. IUCN. The World Conservation Union. Oxford, U.K. Vol. II.
- GOPALAN, R. 1987. Symplocaceae. In: A.N. Henry, G.R. Kumari and V. Chithra eds. Flora of Tamil Nadu, India. Bot. Survey India. Coimbatore. Vol. II. Pp. 68–69.
- NAYAR, M.P. 1996. Hot spots of endemic plants of India, Nepal and Bhutan. Tropical Botanic Garden & Research Institute, Thiruvananthapuram.
- NOOTEBOOM, H.P. 1981. Symplocaceae. In: M.D. Dassanayake and F.R. Fosberg eds. Flora of Ceylon. Amerind Publishing Co., New Delhi.